

**DERWENT-** 1988-015248  
**ACC-NO:**

**DERWENT-** 198803  
**WEEK:**

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**TITLE:** Pulverised coal gasifier under pressure - with tubular  
wall structure sepd. by water filled space from pressure  
vessel

**INVENTOR:** KOHNEN, K; NIERMANN, H ; ULLRICH, N

**PATENT-ASSIGNEE:** KRUPP-KOPPERS GMBH[KOPS]

**PRIORITY-DATA:** 1986DE-3623604 (July 12, 1986)

**PATENT-FAMILY:**

<b>PUB-NO</b>	<b>PUB-DATE</b>	<b>LANGUAGE</b>	<b>PAGES</b>	<b>MAIN-IPC</b>
DE 3623604 A	January 14, 1988	N/A	004	N/A
DE 3762352 G	May 23, 1990	N/A	000	N/A
<u>EP 254830</u> A	February 3, 1988	G	000	N/A
<u>EP 254830</u> B	April 18, 1990	N/A	000	N/A
ES 2014450 B	July 16, 1990	N/A	000	N/A
US 4818253 A	April 4, 1989	N/A	004	N/A
ZA 8703584 A	November 11, 1987	N/A	000	N/A

**DESIGNATED-STATES:** DE ES GR DE ES GR

**CITED-** A3...198833; DE 1063314 ; EP 79092 ; FR 2375317 ; No-  
**DOCUMENTS:** SR.Pub ; US 3018174

**APPLICATION-DATA:**

<b>PUB-NO</b>	<b>APPL-DESCRIPTOR</b>	<b>APPL-NO</b>	<b>APPL-DATE</b>
DE 3623604A	N/A	1986DE-3623604	July 12, 1986
EP 254830A	N/A	1987EP-0107177	May 18, 1987
US 4818253A	N/A	1987US-0060357	June 9, 1987

**INT-CL (IPC):** C01J003/48, C10J003/48 , F27D015/02

**ABSTRACTED-PUB-NO:** DE 3623604A

**BASIC-ABSTRACT:**

A gasification reactor for finely distributed solid fuel under high pressure with oxygen contg. gases is designed as a tubular cooling wall structure inside a pressure vessel. The cooling water circuits of the wall terminate in the water filled space between it and the pressure vessel. This space has a common cooling water outlet through the pressure vessel wall.

ADVANTAGE - This prevents any contact of the hot product gas with the pressure vessel and eliminates the risk of corrosion. Forced coolant circulation ensures a reliable cooling of the tubular wall structure.

**ABSTRACTED-PUB-NO:** EP 254830B

**EQUIVALENT-ABSTRACTS:**

1. Equipment for the gasification of finely comminuted, especially solid fuels with oxygen-containing gases under elevated pressure, wherein the gasification reactor is designed as a pipe wall structure to which cooling water is applied and which is surrounded at a distance by a pressure shell, characterised in that the cooling water outlets (10a-10e) of the cooling circulations (1a-1e) of the pipe wall structure (1) lead into the water-filled space (11) between pipe wall structure (1) and pressure shell (4), and this space, which is provided with a cooling water discharge line (12) penetrating the pressure shell (4), is sealed gas-tight and/or water-tight from the interior (2) of the pipe wall structure (1). (5pp)

US 4818253A

Gasifier for finely divided fuels has a pipe wall structure of cooling H2O pipe circuits which enclose a reactor space and surrounded by a pressure jacket. A common water discharge conduit is provided in the jacket. The reactor space and the gap between the jacket and pipe circuits are hermetically separated. ADVANTAGE - Operationally reliable.

(4pp)

**CHOSEN-** Dwg. 0/1  
**DRAWING:**

**TITLE-** PULVERISE COAL GASIFICATION PRESSURE TUBE WALL STRUCTURE  
**TERMS:** SEPARATE WATER FILLED SPACE PRESSURE VESSEL

**DERWENT-CLASS:** H09 Q77

**CPI-CODES:** H09-C;

**SECONDARY-ACC-NO:**

**CPI Secondary Accession Numbers:** C1988-006606

**Non-CPI Secondary Accession Numbers:** N1988-011407